

ABSTRACT

A method and apparatus of mobile phone using a semiconductor device includes a first converter, a second converter, a first digital processor, and a second digital processor. The first converter converts a first digital audio signal sampled with a predetermined audio sampling frequency into a second digital audio signal sampled with a predetermined voice sampling frequency. The second converter converts a first digital voice signal sampled with the predetermined voice sampling frequency into a second digital voice signal sampled with the predetermined audio sampling frequency. The first digital processor performs a predetermined digital computation on the second digital audio signal sampled with the predetermined voice sampling frequency and a third digital voice signal. The second digital processor performs the predetermined digital computation on the second digital voice signal sampled with the predetermined audio sampling frequency and the first digital audio signal sampled with the predetermined audio sampling frequency.